*2002 C*rash *A*nalysis, *S*tatistics & *I*nformation *Notebook*

*C*rash *A*nalysis, *S*tatistics & *I*nformation

Georgia Department of Motor Vehicle Safety **December 2003**

- Over the five-year period from 1997 to 2002, motor vehicle crashes increased 8.62 percent, from 301,765 in 1997 to 327,774 in 2002. During the same time period the number of injuries declined 4.85 percent, from 139,379 in 1997 to 132,623 in 2002.

- In 2002 there were 26,009 more crashes than in 1997. Although there was an increase in thousands of people at risk of injury, there were 6,442 fewer vehicle occupants injured in 2002 than in 1997. During the same time period seat belt usage for all crash occupants increased 5.2 percentage points, from 74.4 percent in 1997 to 79.6 in 2002.

- From 1997 to 2002, the number of moderate injuries declined by 3,015 injuries and the number of serious injuries declined by 287 injuries.

- In 2002, the number of people that died in crashes in rural counties was more than double the number of fatalities in the five metropolitan Atlanta counties. 327 people died in crashes in the five metropolitan Atlanta counties compared with 718 fatalities in crashes in rural counties.

- Since enactment of the Teenage and Adult Driver Responsibility Act in 1997, drivers age 16 are no longer the most dangerous drivers in Georgia. Eighteen-year-old drivers now have the highest fatal crash rate in Georgia.

- The fatal crash rate for drivers ages 16-17 in rural counties is almost three times the fatal crash rate for drivers ages 16-17 in the five Atlanta metropolitan counties.

- The fatal crash rate for drivers over age 74 in rural counties is three times the fatal crash rate for drivers over age 74 in the five Atlanta metropolitan counties.

- In 2002, 6.48 percent of pedestrians in motor vehicle crashes were killed compared with only 0.15 percent of crash vehicle occupants. 82.7 percent of pedestrians were injured compared with 14.8 percent of vehicle occupants.

- Overturn and fixed object crashes are deadly. In fixed object crashes, 31.36 percent of those involved were killed or injured compared with 14.03 percent in collisions with a moving vehicle. In overturn crashes the percent is even higher, 50.96 percent of the people involved were killed or injured.

- Crashes that occur at an angle accounted for one out of four of the fatal motor vehicle crashes in Georgia in 2002.

- Non-interstate roads are more dangerous than interstates. In 2002, 1,315 people died on state, county and city roads, compared with 216 deaths on interstate highways. In 2002, there were 5,068 serious injuries in crashes on non-interstate roads compared with 661 serious injuries in crashes on interstate roads.

The Department of Motor Vehicle Safety is proud to present the ***2002 C*rash *A*nalysis, *S*tatistics & *I*nformation (CASI) Notebook**. It is the second in a series of ***CASI Reports*** that begun with the data for 2001, the first year of data available from our successful Accident Reporting recovery effort. The ***CASI Notebooks*** provide the first complete motor vehicle crash and injury data since 1997. As subsequent years become available new reports will be added.

In 2002, 1,531 people were killed in motor vehicle crashes in Georgia. On average each week 29 people die in motor vehicle crashes in Georgia. In the past ten years over 15,000 people have lost their lives in motor vehicle crashes. On average 2,550 people were injured in motor vehicle crashes each week in 2002 compared with 2,680 injuries in 1997. Although serious injuries declined 4.77 percent from 1997 to 2002, 122 infants and toddlers, 397 school age children, 795 teens, and 856 young adults were seriously injured in crashes in 2002.

The crash data contradicts several common misconceptions. Since enactment of the Teenage and Adult Driver Responsibility Act in 1997, drivers age 18 have the highest fatal crash rate in Georgia not 16 year old drivers. In 2002, the fatal crash rate per 100,000 licensed drivers for drivers age 18 was 71.26 compared with 56.11 for drivers age 16. In 2002, 5,653 drivers age 18 were involved in injury crashes compared with 3,807 drivers age 16. For 16 year old drivers the most fatal time of day is not late at night or in the early morning hours. In 2002, almost one third of all fatalities in crashes involving at least one driver age 16 occurred from 3-6 PM after school in the afternoon rush hour. In spite of the higher fatal crash rate for younger drivers, drivers over the age of 24 accounted for three out of four drivers in fatal crashes.

The Department of Motor Vehicle Safety is committed to continuing to provide this vital information in the coming years. We are developing cost-effective means of maintaining the high quality database this information is based on and will continue to look for new ways of providing this information to highway safety advocates and the people of Georgia.

Note About the Crash Analysis, Statistics & Information Notebooks

Understanding the many factors that combine to produce a motor vehicle crash is essential in learning how to prevent crashes, injuries and save lives. This is where accurate highway safety data is critical. Highway safety data is the foundation of problem identification and the design of solutions; it is essential for effective deployment of law enforcement officers and vital for public safety education programs. The Department of Motor Vehicle Safety is committed to providing this important data and information.

Our goal is to produce accurate, readily available and useful products based on reliable crash data. All documents will be available in both print and electronic formats. Although electronic dissemination is generally more cost effective than print, many data users either do not have access to electronic tools or prefer print presentation. Georgia has a diverse group of data users. They vary from the university researcher who requires the entire database to the reporter who needs a single data point. DMVS will be sensitive to the needs of the data users and flexible in providing information.

DMVS developed the *C***rash** *A***nalysis**, *S***tatistics** & *I***nformation (CASI) Notebook** to provide straightforward, easy to understand crash information. The *CASI Reports* are part of this Notebook. Rather than produce an expensive, time consuming single document we have decided to produce a notebook that is composed of a series of brief reports. This enables us to add new pages quickly as issues arise and give us the capacity to update pages as new data years become available.

The *CASI Notebook* is formatted for on-line publication. Each page or table can be used as a stand-alone document and also used for print dissemination. Some topics will be several pages long while other topics will be a single page. Topics will include crashes, injuries and fatalities, trends, basic demographics on population and licensed drivers, rural and urban roads, young drivers and other highway safety issues in Georgia.

We will make more detailed information available on two levels. Detailed basic county level data that is in constant demand will be available through county level tables in Excel. For individuals or groups that require raw data to conduct their own analysis of Georgia crashes the data will be available in Access on CD's. Ultimately all data products will be available on our web site so data users can download specifically what they need. As our work progresses and as new needs arise, new pages and products will be added.

Dedication and Thanks

The *C***rash** *A***nalysis**, *S***tatistics** & *I***nformation Notebooks** are dedicated to Brenda Raines. Ms. Raines spent 34 years as the trustee of Accident Reporting and retired in September 2003 after completing the last year of the crash recovery. Her intelligence, energy and compete dedication to accuracy and quality have made this data possible. Her humor and courage in the face of almost insurmountable obstacles was awesome to watch. Brenda, you will sorely be missed. Thank you for caring, thank you for your compulsive drive for accuracy and most of all thank you for the data. You did it!

In the five-year period from 1997 to 2002 motor vehicle crashes increased by 26,009 crashes yet 6,756 fewer people were injured. Crash injuries reflect multiple opposing factors all acting at the same time. An increased population puts more people at risk yet protective behaviors such as seat belt use greatly reduce the number of people actually injured.

There is no correlation between more people dying in crashes and Georgia's increased population. From 1990 to 2000 the population, number of licensed drivers and the vehicle miles they travel increased steadily each year. During the same time period the number of people that died in crashes declined significantly in 1991 and 1992, then increased slowly from 1993 to 1996 and then declined again in 1998 and 1999. In addition the number of fatalities that occur in sparsely populated rural counties is double the number of people that die in metropolitan Atlanta. Clearly more fatalities are not associated with increased drivers or travel.

On the other hand non-injury crashes are related to increased population, licensed drivers and vehicle miles traveled. Throughout the nineties the number of motor vehicle crashes has increased.

- Over the five-year period from 1997 to 2002, motor vehicle crashes increased 8.62 percent, from 301,765 in 1997 to 327,774 in 2002.

- During the same time period the number of injuries declined 4.85 percent, from 139,379 in 1997 to 132,623 in 2002.

Motor Vehicle Crashes, Injuries and Fatalities

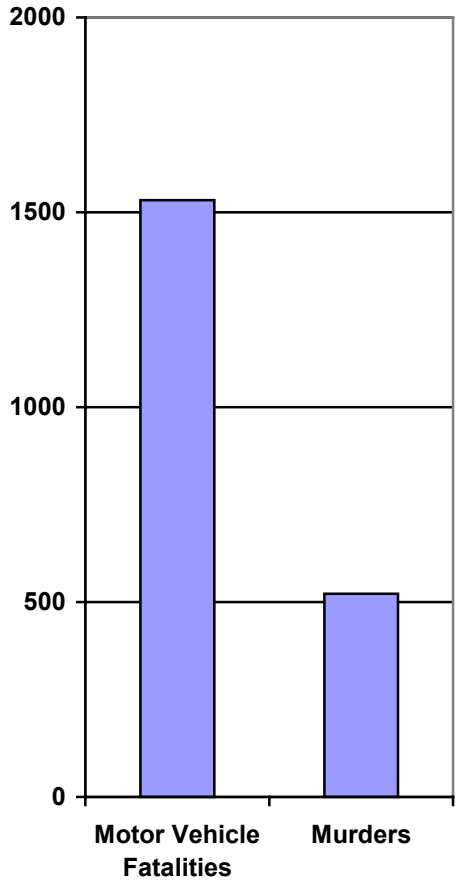
	1997		2002		
	Number	Rate per 100 Million Vehicle Miles Traveled	Number	Rate per 100 Million Vehicle Miles Traveled	Percent Change In Number 1997-2002
Crashes	301,765	324.2	327,774	306.95	8.62
Injuries	139,379	149.8	132,623	124.2	-4.85
Fatalities	1,584	1.70	1,531	1.43	-3.35

Data Source: Georgia Department of Motor Vehicle Safety, Georgia Department of Transportation

Motor vehicle crash fatalities out number murders three to one. In the past ten years over 15,000 people have lost their lives in motor vehicle crashes. Motor vehicle crashes are not a natural cause of death. The crashes that kill, maim and injure thousands of Georgians each year are preventable.

- In 2002, on average 29 people were killed in crashes each week compared with 10 murders. On average 2,550 people were injured in motor vehicle crashes each week in 2002.
- Crashes are the leading cause of death for persons ages 4-35.
- 27 infants and toddlers, 56 school age children, 186 teens, and 177 young adults were killed in crashes in 2002.
- Motor vehicle crashes are the leading cause of traumatic head injuries, injuries that often result in death or decades of slow and incomplete recovery.
- 122 infants and toddler, 397 school age children, 795 teens, and 856 young adults were seriously injured in crashes in 2002.
- In 2002, a total of 5,729 people were seriously injured in crashes in Georgia.

2002 Motor Vehicle Fatalities Compared with Murdered Persons



In 2002, 1,531 people were killed in crashes compared with 521 murders.

In that single year 1,010 more people died in crashes than were murdered.

Data Sources: Georgia Department of Motor Vehicle Safety, Georgia Bureau of Investigation

In 2002 132,623 people were injured in motor vehicle crashes in Georgia. 5,729 people received serious, incapacitating injuries such as traumatic head injuries, paralysis, internal bleeding or other severe injuries.

- On average 363 people were injured each day in 2002, compared with a daily average of 382 in 1997.
- From 1997 to 2002, the number of moderate injuries declined by 3,015 injuries and the number of serious injuries declined by 287 injuries.
- In 2002 there were 26,009 more crashes than in 1997. Although there was an increase in thousands of people at risk of injury, there were 6,756 fewer people injured in 2002 than in 1997.
- The greatest decline was in moderate injuries. The number moderate injuries declined by 8.65 percent compared with a 3.51 percent decline in minor injuries.
- From 1997 to 2002, the injury rate per 100 million vehicle miles traveled declined for all types of injuries.

Complete crash injury data is now available for the first time since 1997. The data confirms the initial decline in injuries seen in 1997. Crash injuries reflect multiple opposing factors all acting at the same time. An increased population produces more people at risk yet protective behaviors such as seat belt use greatly reduce the number of people actually injured.

Motor Vehicle Crash Injuries
Number and Percent Change

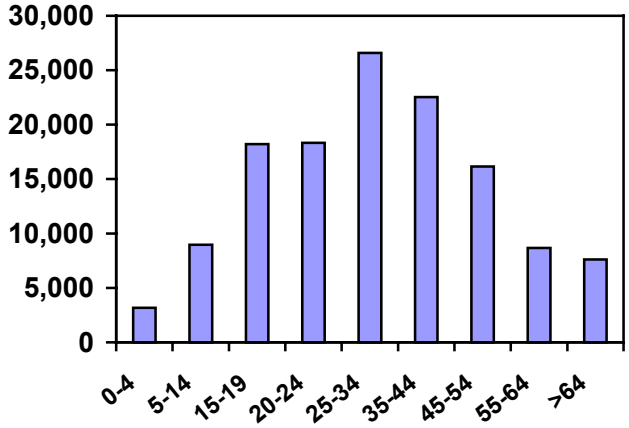
Injury Severity	1997 Number	1997 Rate per 100 Million Vehicle Miles Traveled	2002 Number	2002 Rate per 100 Million Vehicle Miles Traveled	Percent Change in Number 1997-2002
Minor Injury	98,516	105.85	95,062	89.02	-3.51
Moderate Injury	34,847	37.44	31,832	29.81	-8.65
Serious Injury	6,016	6.46	5,729	5.36	-4.77
Total Injuries	139,379	149.75	132,623	124.20	-4.85
Fatalities	1,584	1.70	1,531	1.43	-3.35

Data Source: Georgia Department of Motor Vehicle Safety, Georgia Department of Transportation

In 2002, 132,623 people were injured in motor vehicle crashes in Georgia. Motor vehicle crashes result in more than 2,500 injuries a week on average.

- From 1997 to 2002, motor vehicle crash injuries declined for all persons under age 35. Injuries increased for all persons age 35 to 64.
- Crash injuries increased 4.49 percent for persons over age 74.
- The greatest increase in crash injuries was for persons ages 55 to 64, 16.61 percent from 1997 to 2002.
- The greatest decline in crash injuries was for infants and toddlers ages 0 to 4, 15.58 percent from 1997 to 2002. In 1997 infants and toddlers represented 2.76 percent of the injuries, in 2002 they accounted for 2.44 percent.

Injuries by Age, 2002



Injuries by Age*

Ages	1997 Number	1997 Percent	2002 Number	2002 Percent	Percent Change 1997-2002
0-4	3,768	2.76	3,181	2.44	-15.58
5-9	4,844	3.55	4,099	3.15	-15.38
10-14	5,632	4.12	4,879	3.75	-13.37
15-19	20,865	15.27	18,220	13.99	-12.68
20-24	18,900	13.83	18,319	14.06	-3.07
25-34	30,696	22.47	26,579	20.40	-13.41
35-44	22,412	16.40	22,530	17.30	0.53
45-44	14,517	10.63	16,158	12.40	11.30
55-64	7,442	5.45	8,678	6.66	16.61
65-74	4,648	3.40	4,592	3.53	-1.20
Over 74	2,898	2.12	3,028	2.32	4.49

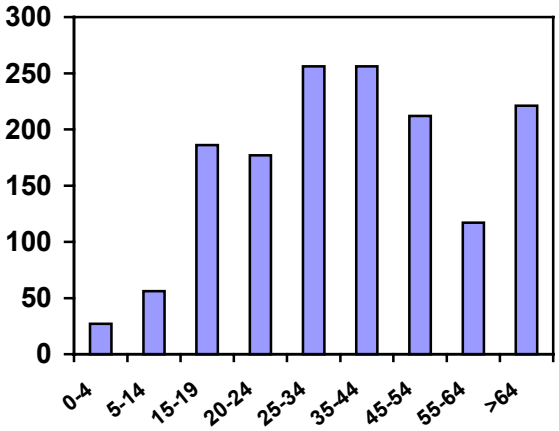
*Injury severity as noted by the law enforcement officer on the crash report.
Unknown ages excluded from percent calculation.

Data Source: Georgia Department of Motor Vehicle Safety

In 2002, 1,531 people were killed in motor vehicle crashes in Georgia. On average each week 29 people die in motor vehicle crashes in Georgia.

- The number of children under age 4 killed in motor vehicle crashes declined 35.71 percent from 1997 to 2002. For school age children ages 5-9, fatalities declined 30.95 percent from 1997 to 2002.
- The number of children ages 10-14 who were killed in crashes decreased 27.03 percent.
- From 1997 to 2002, fatalities increased 2.20 percent for persons ages 15-19.
- Fatalities increased for persons ages 35-64 and declined for persons age 65 and older.

Fatalities by Age, 2002



Fatalities by Age*

Ages	1997 Number	1997 Percent	2002 Number	2002 Percent	Percent Change 1997-2002
0-4	42	2.68	27	1.79	-35.71
5-9	42	2.68	29	1.92	-30.95
10-14	37	2.36	27	1.79	-27.03
15-19	182	11.59	186	12.33	2.20
20-24	203	12.93	177	11.74	-12.81
25-34	285	18.15	256	16.98	-10.18
35-44	233	14.84	256	16.98	9.87
45-44	199	12.68	212	14.06	6.53
55-64	109	6.94	117	7.76	7.34
65-74	108	6.88	97	6.43	-10.19
Over 74	130	8.28	124	8.22	-4.62

*Unknown ages excluded from percent calculation.

Data Source: Georgia Department of Motor Vehicle Safety

A total of 245,020 traffic citations were issued in the 327,774 motor vehicle crashes in 2002.

- The highest number of traffic citations was written for following too closely. The second greatest number of tickets was for failure to yield. 73,042 citations were written for following too closely and 34,478 for failure to yield.

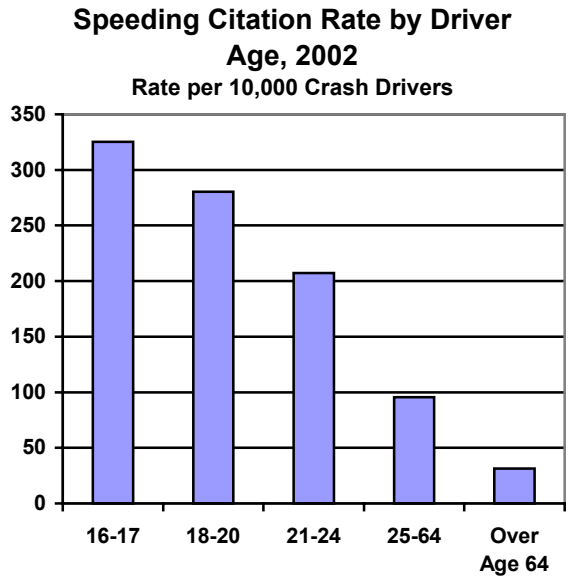
- Drivers age 18 received the highest number of citations for a single age group. They also had the highest overall crash rate and the highest fatal crash rate in 2002. 13,976 traffic citations were written to 18-year-old drivers in crashes in 2002.

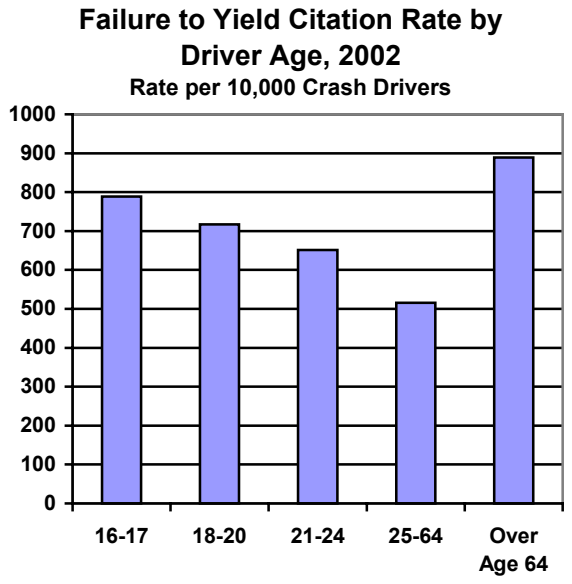
- Calculating a rate per 10,000 crash drivers for each type of traffic citation gives us an idea of the risk or frequency for certain drivers. For example, the speeding citation rate per 10,000 crash drivers is 325.2 for crash drivers ages 16-17 compared with 95.6 for drivers ages 25-64. Unsafe or illegal speed is one of the top three contributing factors in fatal crashes involving drivers ages 16-17.

- For drivers ages 21-24 the rate per 10,000 crash drivers for driving under the influence of alcohol or drugs was 213.4 compared with 54.5 for drivers ages 16-17 and 171.7 for drivers ages 25-64.

- The citation rate per 10,000 crash drivers over age 64 for failure to yield was 889.0 compared with a rate of 515.3 for drivers ages 25-64. In 2002, the top contributing factor for drivers over age 64 in fatal crashes was failure to yield.

- Younger drivers also had a higher rate when compared to drivers ages 25-64. For drivers ages 16-17 the failure to yield rate was 788.5 and for drivers 18-20 the rate was 717.4.



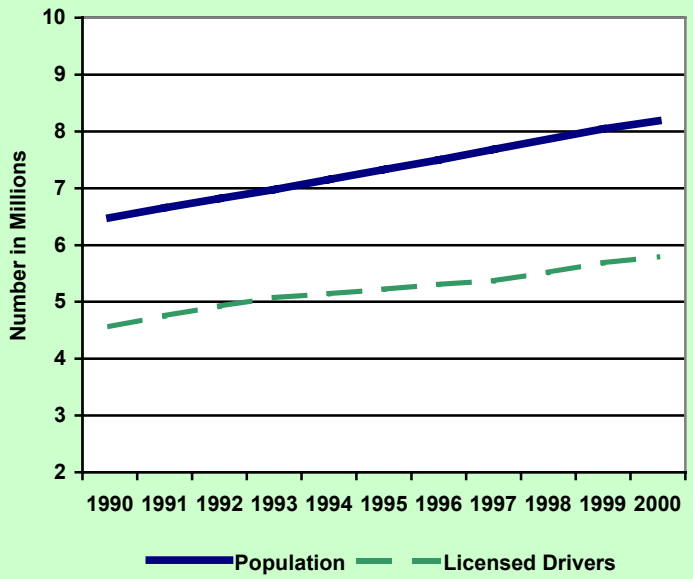


*Traffic citations were grouped by type of driver violation.
Data Sources: Georgia Department of Motor Vehicle Safety

Georgia's massive population growth and reliance on personal passenger vehicles has had profound effects on the safety of the roads and highways.

- The number of licensed drivers in Georgia increased 26.9 percent from 1990 to 2000.
- Females were in the majority in both population and licensed drivers. In 2000, females accounted for 50.8 percent of the population and 50.7 percent of the licensed drivers.
- From 1990 to 2000 Georgia's population increased 26.4 percent compared to a 13.1 increase percent for the nation.
- For persons under 18 years of age the Georgia population increased 26.5 percent compared with 9.6 percent for persons over age 65.
- In 2000, 91 percent of the Georgia population over age 14 was a licensed driver.

Growth in Georgia's Population and Licensed Drivers 1990-2000



Commuting to Work

	Georgia	United States
Mean Travel Time in Minutes	27.7	25.5
Drive Alone	77.5 %	75.7 %
Carpool	14.5	12.2
Public Transportation	2.3	4.7
Walked	1.7	2.9
Other Means	1.1	1.2
Work at Home	2.8	3.3

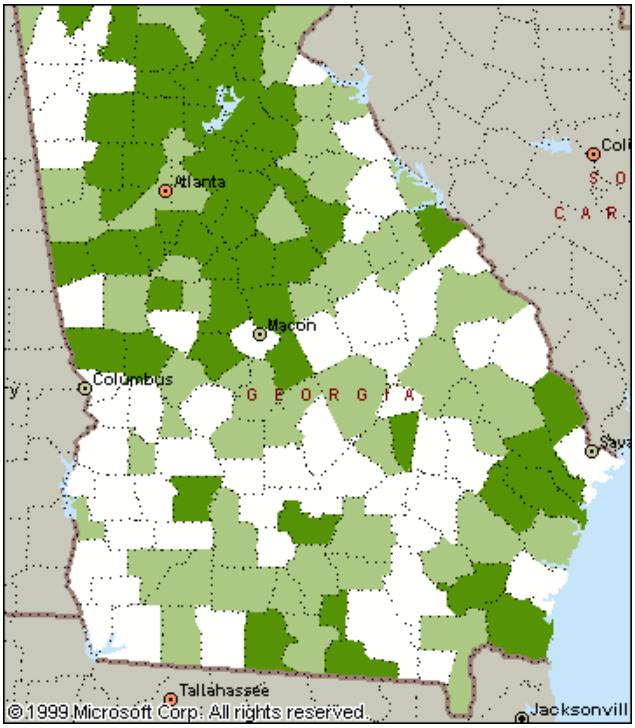
- The mean travel time to work in Georgia was 27.7 minutes compared to 25.5 minutes for the nation.
- More Georgians commute to work alone than nationwide, 77.5 percent in Georgia compared with 75.7 percent for the nation.
- Fewer Georgians take public transportation to work, 2.3 percent in Georgia compared to 4.7 percent for the nation.

Data Sources: U.S. Census Bureau, Georgia Department of Motor Vehicle Safety, preliminary data release July 28, 2003

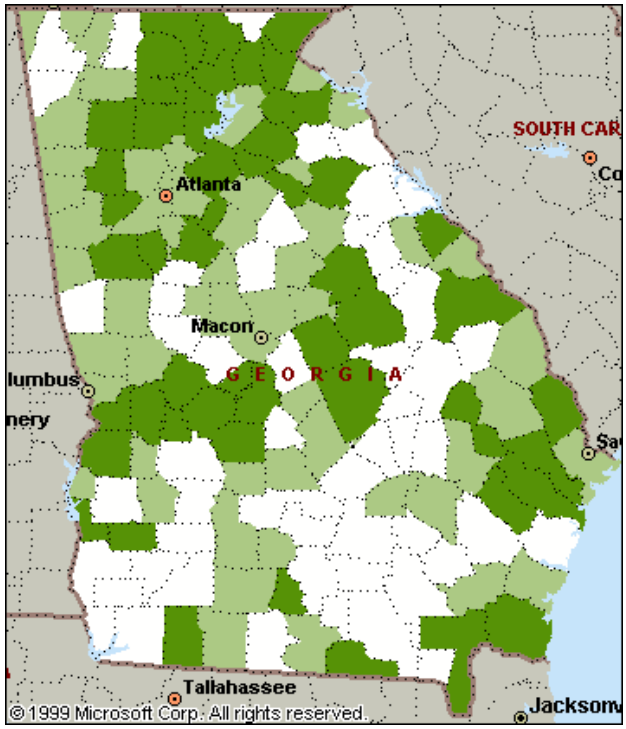
Georgia's population has grown dramatically in the past decade. With the growth in population has come an increase in drivers, vehicles, the miles they travel and of course crashes.

- From 1990 to 2002 the population in Georgia increased 32.14 percent and the number of vehicle miles traveled increased 47.0 percent.
- From 1990 to 2002 the number of licensed drivers in Georgia increased 44.03 percent.
- From 1990 to 2002 the number of motor vehicle crashes increased more than the change in population but less than the increase in vehicle miles traveled. From 1990 to 2002 the number of motor vehicle crashes increased 43.66 percent, from 228,163 in 1990 to 317,817 in 2002.

Growth in Licensed Drivers 1990 to 2002



Increase in Motor Vehicle Crashes 1990 to 2002



Counties with the Highest Increase – Darkest
Counties with the Next Highest Increase – Medium
Counties with the Lowest Increase – Lightest

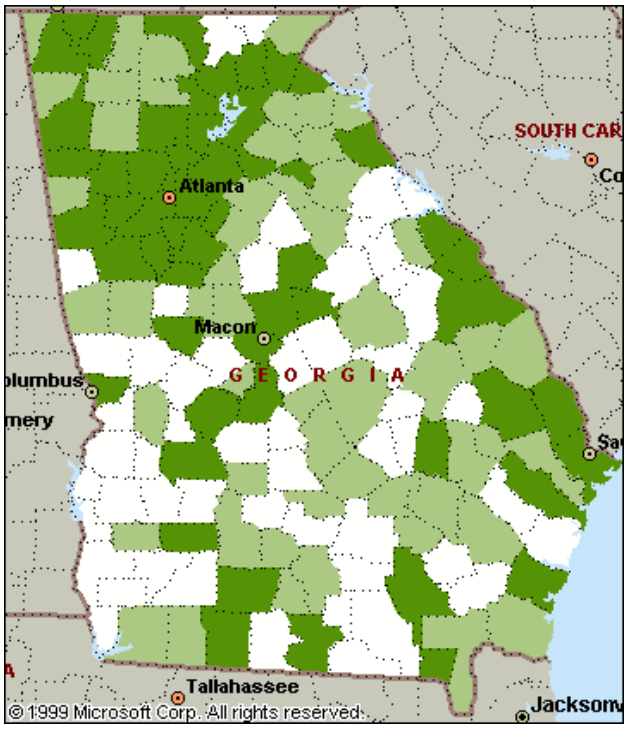
Data Sources: Georgia Department of Motor Vehicle Safety, U.S. Census Bureau, Georgia Department of Transportation

Crashes and Fatalities - Two Georgia's

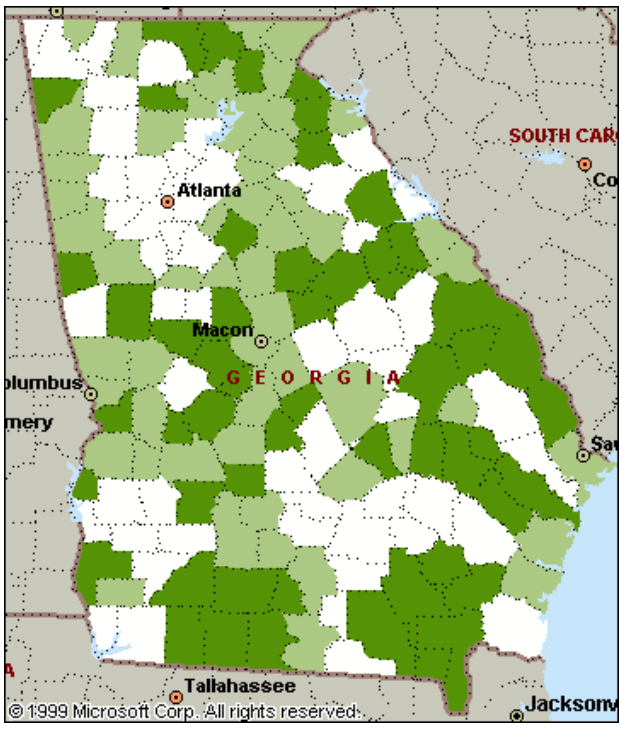
2002 CASI Report

Georgia's massive growth has had profound effects on the safety of the roads and highways. Increased drivers, cars and travel lead to congested roadways which increases the risk of property damage and minor injury crashes. The congestion can however diminish the risk of fatal crashes because the factors that contribute to fatal crashes such as speed do not occur in bumper to bumper traffic. The increased congestion has primarily occurred in metropolitan regions and they have the lowest fatality rate.

2002 Crash Rate per 100 Million Vehicle Miles Traveled



2002 Fatality Rate per 100 Million Vehicle Miles Traveled



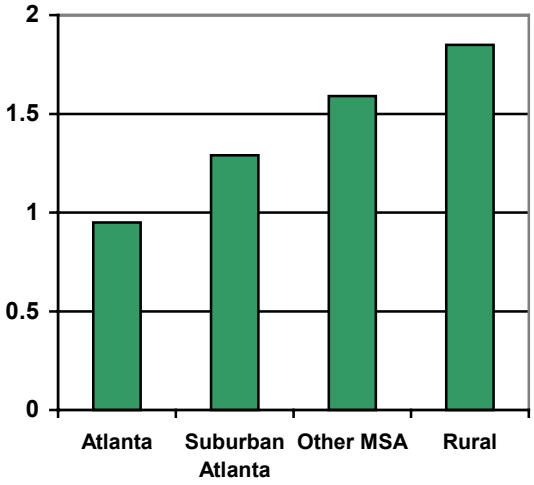
Counties with the Highest Rate – Darkest
Counties with the Next Highest Rate – Medium
Counties with the Lowest Rate – Lightest

Data Source: Georgia Department of Motor Vehicle Safety, Georgia Department of Transportation

Crashes, Injuries and Fatalities - Two Georgia's 2002 CASI Report

In 2002, the number of people that died in crashes in rural counties was more than double the number of fatalities in the five metropolitan Atlanta counties. The fatality rate per 100 million vehicle miles traveled in rural Georgia was almost double that of the five metropolitan Atlanta counties.

Fatality Rate by Region, 2002
Rate per 100 Million Vehicle Miles Traveled



- Rural roads are fatal because they are often narrow, two-lane roads with no physical barrier or division separating oncoming traffic and have frequent entering and exiting traffic. This greatly increases the risk of a fatal crash compared to limited access roadways.

- Non-fatal crashes occur more frequently in metropolitan areas with high numbers of drivers, vehicles and traffic. Even when adjusted for the high vehicle miles traveled the crash rate in metropolitan areas is higher than rural counties.

- In July 1996, the speed limit was increased to 70 mph on rural interstates. Three years later the number of fatalities on rural interstate roads increased 67.5 percent when compared to the three-year period before the speed limit was raised.

Georgia Crashes, Injuries and Fatalities by Region, 2002
Atlanta, Atlanta Suburban, Other MSA and Rural Counties*

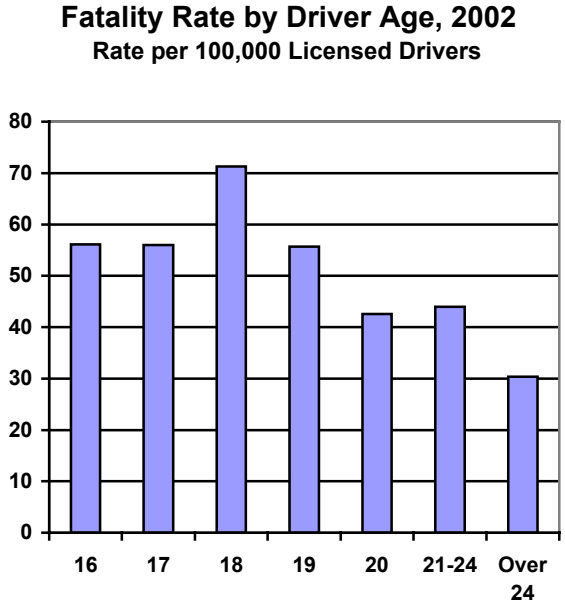
	Crashes		Injuries		Fatalities	
	Number	Rate per 100 Million Vehicle Miles Traveled	Number	Rate per 100 Million Vehicle Miles Traveled	Number	Rate per 100 Million Vehicle Miles Traveled
Atlanta	147,253	428.83	51,578	150.20	327	0.95
Atlanta Suburban	43,137	266.79	18,277	113.04	208	1.29
Other MSA	65,541	374.02	26,403	150.67	278	1.59
Rural Counties	71,843	185.38	36,365	93.83	718	1.85

*Five Atlanta Metropolitan Counties: Clayton, Cobb, DeKalb, Fulton, Gwinnett; Atlanta Suburban Counties: Barrow, Bartow, Carroll, Cherokee, Coweta, Douglas, Fayette, Forsyth, Henry, Newton, Paulding, Pickens, Rockdale, Spalding, Walton; Other Metropolitan Statistical Area (MSA) Counties: Bibb, Bryan, Catoosa, Chatham, Chattahoochee, Clarke, Columbia, Dade, Dougherty, Effingham, Harris, Houston, Jones, Lee, Madison, McDuffie, Muscogee, Oconee, Peach, Richmond, Twiggs, Walker; Rural Counties: All other counties

Data Source: Georgia Department of Motor Vehicle Safety, Georgia Department of Transportation

Since enactment of the Teenage and Adult Driver Responsibility Act in 1997, drivers age 16 are no longer the most dangerous drivers in Georgia. Eighteen-year-old drivers now have the highest fatal crash rate in Georgia. In 2002, the fatal crash rate per 100,000 licensed drivers for drivers age 18 was 71.26 compared with 56.11 for drivers age 16.

In spite of the higher fatal crash rate for younger drivers, drivers over the age of 24 accounted for three out of four drivers in fatal crashes.



- The inexperience and immaturity of younger drivers are thought to be major contributing factors in their higher fatality rate.
- In 2002, 5,653 drivers age 18 were involved in injury crashes compared with 3,807 drivers age 16.
- 68 percent of the drivers age 16 in fatal crashes in 2002 were male although they represented only 51 percent of the licensed drivers.
- In 2002, 50 percent of the fatal crashes involving drivers age 16 were single vehicle crashes such as fixed object or overturned vehicle. For drivers over age 24 single vehicle crashes accounted for 31.6 percent of the fatal crashes.

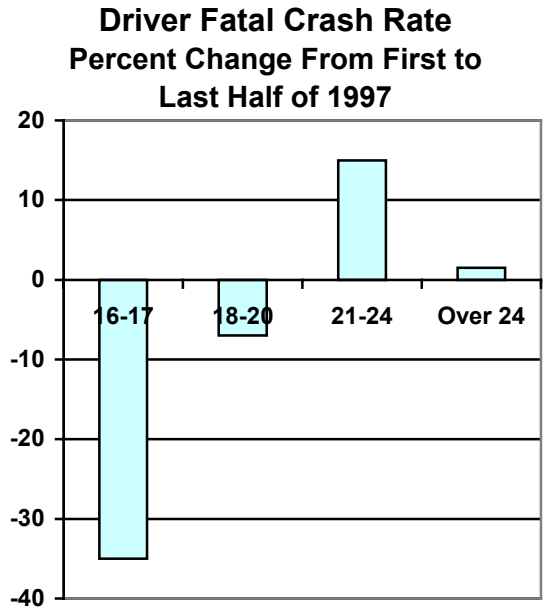
Young Drivers Involved in Crashes, 2002

Driver Age	Crashes		Injury Crashes		Fatal Crashes	
	Number of Drivers	Rate per 100,000 Licensed Drivers	Number of Drivers	Rate per 100,000 Licensed Drivers	Number of Drivers	Rate per 100,000 Licensed Drivers
16	12,578	16,040.30	3,807	4,854.94	44	56.11
17	16,516	18,861.42	4,724	5,394.85	49	55.96
18	19,589	19,940.55	5,653	5,754.45	70	71.26
19	18,658	17,320.99	5,281	4,902.57	60	55.70
20	17,862	15,840.58	5,093	4,516.63	48	42.57
21-24	67,375	13,530.50	18,632	3,741.75	219	43.98
Over 24	433,224	7,824.32	117,463	2,121.46	1,682	30.38

Data Source: Georgia Department of Motor Vehicle Safety

The Teenage and Adult Driver Responsibility Act was enacted in July 1, 1997 to reduce the number of lives lost in crashes involving young drivers.

- From the first half of 1997 before the law was passed to the last half of 1997 when the law went into effect, the number of drivers ages 16-17 in fatal crashes declined significantly.
- The fatal crash rate per 100,000 licensed drivers ages 16-17 declined 35.1 percent from the first to the last half of 1997.
- When comparing the full 1997-calendar year with 2002, the number of drivers ages 16-17 in fatal crashes declined 20.92 percent.



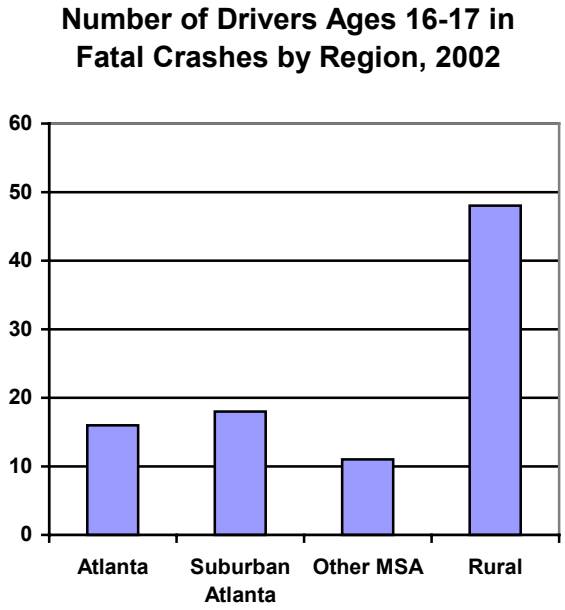
- On average drivers ages 16-17 were involved in 88 motor vehicle crashes each day in 1997 compared with 80 in 2002.
- From 1997 to 2002, the crash rate per 100,000 licensed drivers declined for all types of crashes.
- The smallest decline in rate was for drivers ages 18-20 involved in crashes, 6.47 percent from 1997 to 2002.
- The greatest decline was for drivers ages 21-24 in fatal crashes.

Young Drivers

Driver Age	1997 Number of Drivers in Crashes	1997 Rate per 100,000 Licensed Drivers	2002 Number of Drivers in Crashes	2002 Rate per 100,000 Licensed Drivers	Percent Change in Rate 1997-2002
All Crashes					
16-17	32,139	22,164.67	29,094	17,528.62	-20.92
18-20	49,930	18,823.33	56,109	17,604.65	-6.47
21-24	60,436	15,702.52	67,375	13,530.50	-13.83
Over 24	397,515	8,852.19	433,224	7,824.32	-11.61
Injury Crashes					
16-17	10,322	7,118.57	8,531	5,139.78	-27.80
18-20	15,773	5,946.33	16,027	5,028.60	-15.43
21-24	18,328	4,761.99	18,632	3,741.75	-21.42
Over 24	116,494	2,594.18	117,463	2,121.46	-18.22
Fatal Crashes					
16-17	104	71.72	93	56.03	-21.88
18-20	183	68.99	178	55.85	-19.05
21-24	253	65.73	219	43.98	-33.09
Over 24	1,636	36.43	1,682	30.38	-16.62

Data Source: Georgia Department of Motor Vehicle Safety

The fatal crash rate for drivers ages 16-17 in rural counties is almost three times the fatal crash rate for drivers ages 16-17 in the five Atlanta metropolitan counties. Rural roads have a higher fatal crash rate per 100,000 licensed drivers for all drivers and young drivers are no exception.



- In 2002, 16 drivers ages 16-17 were involved in fatal crashes in Clayton, Cobb, DeKalb, Fulton and Gwinnett counties, compared with 48 drivers ages 16-17 involved in fatal crashes in rural counties.
- In the 15 suburban Atlanta counties, 18 drivers ages 16-17 were involved in fatal crashes and 11 drivers ages 16-17 in metropolitan counties other than Atlanta.
- For all age groups rural counties have the most people killed in motor vehicle crashes and the highest fatal crash rate.

Drivers in Fatal Crashes by Driver Age and Region, 2002
Atlanta, Atlanta Suburban, Other MSA and Rural Counties*

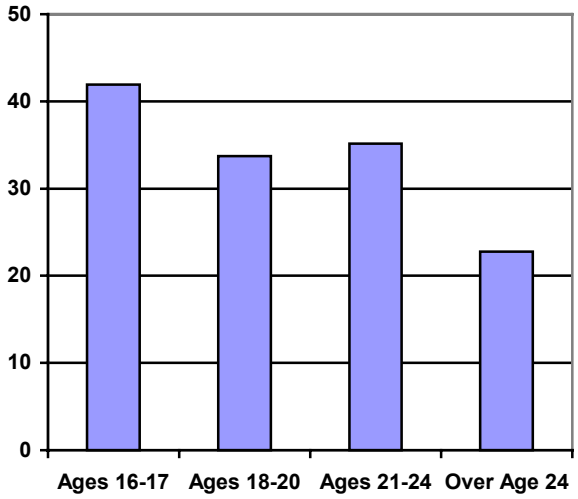
	Ages 16-17		Ages 18-20		Ages 21-24		Over Age 24	
	Number Drivers	Rate per 100,000 Licensed Drivers	Number Drivers	Rate per 100,000 Licensed Drivers	Number Drivers	Rate per 100,000 Licensed Drivers	Number Drivers	Rate per 100,000 Licensed Drivers
Atlanta	16	31.99	38	37.16	62	36.01	378	18.41
Atlanta Suburban	18	58.56	26	49.2	34	45.23	249	27.66
Other MSA	11	36.32	36	59.05	36	37.19	345	35.32
Rural Counties	48	87.36	78	75.99	87	56.57	710	44.2

*Five Atlanta Metropolitan Counties: Clayton, Cobb, DeKalb, Fulton, Gwinnett; Atlanta Suburban Counties: Barrow, Bartow, Carroll, Cherokee, Coweta, Douglas, Fayette, Forsyth, Henry, Newton, Paulding, Pickens, Rockdale, Spalding, Walton; Other Metropolitan Statistical Area (MSA) Counties: Bibb, Bryan, Catoosa, Chatham, Chattahoochee, Clarke, Columbia, Dade, Dougherty, Effingham, Harris, Houston, Jones, Lee, Madison, McDuffie, Muscogee, Oconee, Peach, Richmond, Twiggs, Walker; Rural Counties: All other counties

Data Sources: Georgia Department of Motor Vehicle Safety

- The three top contributing factors to fatal crashes involving drivers ages 16-17 were Lost Control of Vehicle, Unsafe or Illegal Speed, and Driver Distracted. For drivers over age 24, the top three contributing factors to fatal crashes were Lost Control of Vehicle, Driving Under the Influence of Alcohol or Drugs, and Unsafe or Illegal Speed.
- Lost Control of Vehicle was noted for 41.9 percent of the drivers ages 16-17 in fatal crashes, compared with 22.8 percent of drivers over age 24 in fatal crashes.
- The contributing factor of Unsafe or Illegal Speed was noted for 23.7 percent of the drivers ages 16-17 in fatal crashes, compared with 11.2 percent of drivers over age 24 in fatal crashes.

Driver Lost Control, 2002
Percent of Fatal Crash Drivers



Driver Condition DUI – Alcohol, Drugs, or Alcohol and Drugs

Driving Under the Influence of Alcohol or Drugs was noted for 11.8 percent of the drivers ages 16-17 in fatal crashes, compared with 14.6 percent of drivers ages 21-24 in fatal crashes.

Drugs not alcohol were noted for 6 of the 11 drivers ages 16-17 involved in DUI fatal crashes, 54.5 percent of the DUI drivers ages 16-17 in fatal crashes. For drivers over age 24 in fatal crashes, drugs were noted for 52 of the 205 drivers reported as DUI, 25.4 percent of the DUI drivers over age 24 in fatal crashes.

The most dangerous time of day for drivers age 16 was after school in the afternoon rush hour.

- The most fatal time of day is not late at night or in the early morning hours. In 2002, almost one third of all fatalities in crashes involving at least one driver age 16 occurred from 3-6 PM.
- The second most dangerous time of day was in the early evening hours from 6-9 PM with 13 fatalities.
- The fewest fatalities occurred from 6 to 9 AM with 1 fatality. The second least dangerous time was from 3 to 6 AM with 2 fatalities in crashes involving at least one driver age 16.

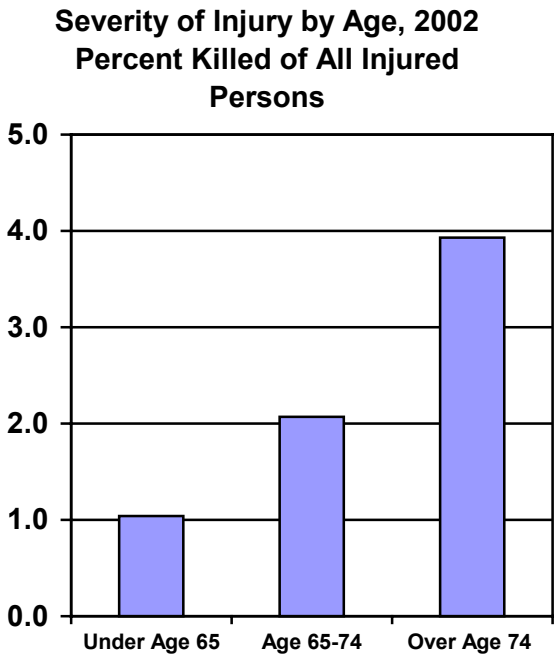
Data Source: Georgia Department of Motor Vehicle Safety

Time of Day
Fatalities in Crashes
Involving Drivers Age 16

Time of Day	2002 Fatalities Number	Percent
6-9 AM	1	1.96
9-12 AM	3	5.88
12-3 PM	5	9.80
3-6 PM	15	29.41
6-9 PM	13	25.49
9-12 PM	6	11.76
12-3 AM	6	11.76
3-6 AM	2	3.92
Total	51	100.0

Persons over age 64 were more often seriously injured or killed in crashes than younger persons.

- Older persons face a greater risk of injury or death in motor vehicle crashes than younger persons due to a greater susceptibility to physical injury that is often complicated by previous existing medical conditions.
- In 2002, persons over age 74 were almost four times more likely to be killed than younger persons under age 65. Of the persons over age 74 injured, 3.93 percent were killed compared with 1.04 percent for persons under age 65.



Older Drivers in Crashes

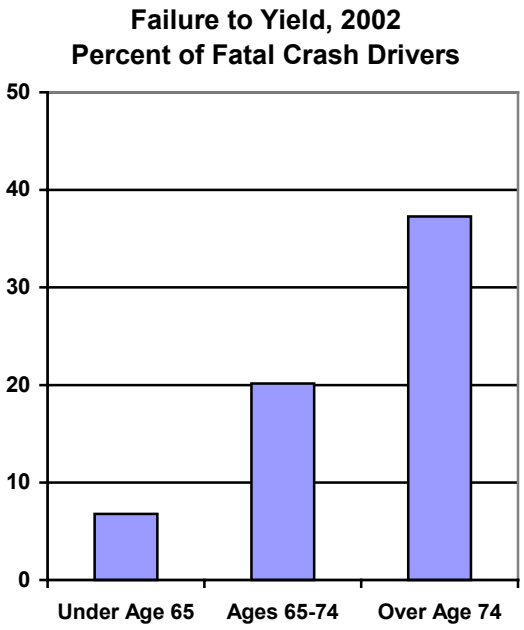
Driver Age	1997 Number of Drivers in Crashes	1997 Rate per 100,000 Licensed Drivers	2002 Number Of Drivers In Crashes	2002 Rate per 100,000 Licensed Drivers	Percent Change in Rate 1997-2002
All Crashes					
16-24	142,505	17,922.05	152,578	15,527.26	-13.36
25-64	364,799	9,292.16	398,027	8,191.14	-11.85
65-74	20,923	5,806.14	22,412	5,346.04	-7.92
Over 74	11,793	5,867.60	12,785	4,947.28	-15.68
Injury Crashes					
16-24	44,423	5,586.83	43,190	4,395.28	-21.33
25-64	106,618	2,715.77	107,372	2,209.65	-18.64
65-74	6,280	1,742.70	6,298	1,502.29	-13.80
Over 74	3,596	1,789.19	3,793	1,467.74	-17.97
Fatal Crashes					
16-24	540	67.9	490	49.87	-26.57
25-64	1,397	35.6	1,443	29.70	-16.55
65-74	126	35.0	129	30.77	-11.99
Over 74	113	56.2	110	42.57	-24.29

- Drivers over age 74 have a higher crash rate than drivers ages 16-24. The fatal crash rate for drivers over age 74 is only slightly lower that for drivers ages 16-24.
- Fatal crashes at intersections occurred more often with older drivers. 47 percent of the fatal crashes involving drivers ages 65-74 were at an intersection. Intersection crashes accounted for 54 percent of the fatal crashes for drivers over age 74 compared with 34 percent for younger drivers.

Data Source: Georgia Department of Motor Vehicle Safety

The three top contributing factors to fatal crashes for drivers over age 74 were Failure to Yield, Lost Control of Vehicle, and Driver Distracted.

- In comparison, the top three contributing factors to fatal crashes for drivers under age 65 were Lost Control of Vehicle, Unsafe or Illegal Speed, and Driving Under the Influence of Alcohol or Drugs.
- In fatal crashes in 2002, Failure to Yield was reported for 37.3 percent of the drivers over age 74 compared with 6.78 percent of the drivers under age 65.
- Lost Control of Vehicle was noted for 16.4 percent of the drivers over age 74 in fatal crashes. In comparison, it was noted for 27.4 percent of drivers under age 65 in fatal crashes who also have a higher reported incidence of Unsafe or Illegal Speed and Driving Under the Influence of Alcohol or Drugs.



Rural roads are dangerous and have higher fatal crash rates per 100,000 licensed drivers for all drivers, including the older driver.

Drivers in Fatal Crashes by Driver Age and Region, 2002
Atlanta, Atlanta Suburban, Other MSA and Rural Counties*

	Under Age 65		Over Age 64	
	Number Drivers	Rate per 100,000 Licensed Drivers	Number Drivers	Rate per 100,000 Licensed Drivers
Atlanta	468	21.15	28	15.57
Atlanta Suburban	290	29.81	37	38.12
Other MSA	377	36.54	54	37.80
Rural Counties	812	48.36	120	46.53

*Five Atlanta Metropolitan Counties: Clayton, Cobb, DeKalb, Fulton, Gwinnett; Atlanta Suburban Counties: Barrow, Bartow, Carroll, Cherokee, Coweta, Douglas, Fayette, Forsyth, Henry, Newton, Paulding, Pickens, Rockdale, Spalding, Walton; Other Metropolitan Statistical Area (MSA) Counties: Bibb, Bryan, Catoosa, Chatham, Chattahoochee, Clarke, Columbia, Dade, Dougherty, Effingham, Harris, Houston, Jones, Lee, Madison, McDuffie, Muscogee, Oconee, Peach, Richmond, Twiggs, Walker; Rural Counties: All other counties

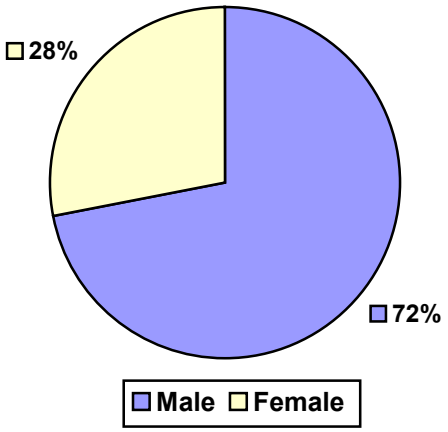
- The fatal crash rate for drivers over age 64 in rural counties is three times the fatal crash rate for drivers over age 64 in the five Atlanta metropolitan counties.
- For drivers over age 64 the fatal crash rate in Atlanta Suburban counties is double that of the five Atlanta counties.

Data Source: Georgia Department of Motor Vehicle Safety

In 2002, the fatal crash rate per 100,000 licensed drivers for male drivers was more than double that of female drivers.

- In 2002, male drivers were involved in 72 percent of the fatal crashes, although they accounted for only 49.2 percent of licensed drivers in Georgia.
- Male drivers were over-represented in fatal crashes overall. In 2002 male drivers accounted for 82.2 percent of the drivers in fatal crashes involving illegal or unsafe speed and 83.3 percent of the alcohol or drug involved drivers in fatal crashes.
- 54 percent of female drivers involved in fatal crashes were using safety restraints, compared with 30 percent of the male drivers.

Drivers in Fatal Crashes by Gender, 2002



Driver Involvement in Motor Vehicle Crashes by Gender

Driver Gender	1997 Number of Drivers In Crashes	1997 Rate per 100,000 Licensed Drivers	2002 Number of Drivers In Crashes	2002 Rate per 100,000 Licensed Drivers	Percent Change in Rate 1997-2002
All Crashes					
Male	329,991	12,491.60	358,909	11,091.54	-11.21
Female	231,913	8,601.96	262,530	7,863.61	-8.58
Injury Crashes					
Male	94,045	3,560.01	92,593	2,861.45	-19.62
Female	72,256	2,680.07	73,911	2,213.87	-17.40
Fatal Crashes					
Male	1,601	60.60	1,628	50.31	-16.99
Female	631	23.40	632	18.93	-19.12

Number of Licensed Drivers		Percent Change in Number
Male	2,641,703	3,235,882	22.49
Female	2,696,049	3,338,541	23.83

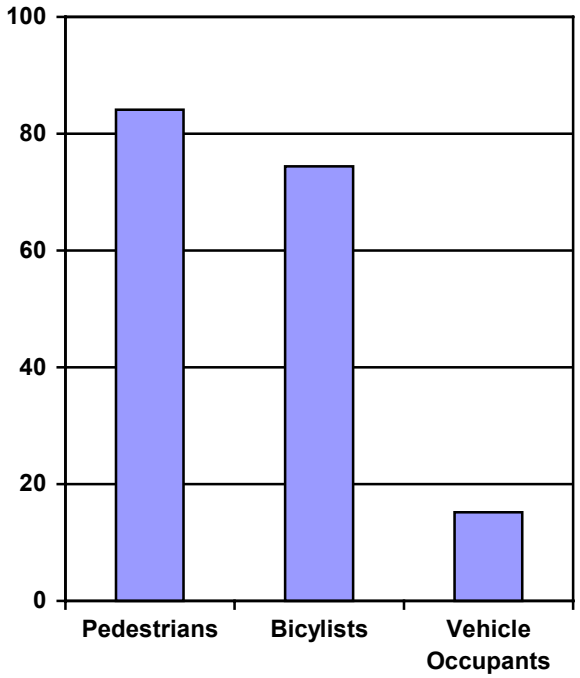
- Male drivers accounted for the majority of crash drivers in almost the same proportion in both 1997 and 2002.
- In 2002, male drivers represented 55.6 percent of the drivers in injury crashes.
- Male drivers accounted for 76.8 percent of the drivers in deadly single vehicle crashes such as overturned or fixed object.

Data Source: Georgia Department of Motor Vehicle Safety

Of all persons who use Georgia's roads, pedestrians are the most vulnerable to injury in a motor vehicle crash. In 2002, 166 pedestrians were killed in motor vehicle crashes and 2,118 were injured. Pedestrians are 40 times more likely to be killed in motor vehicle crashes than vehicle occupants.

- Pedestrians and bicycles do not safely mix with motorized, large vehicles without modification of roadway design and traffic safety laws specifically designed to protect the persons most vulnerable to injury in a crash.
- The serious risk pedestrians face on the road can be demonstrated by examining the proportion of injuries that result when a vehicle hits a pedestrian compared with a vehicle to vehicle collision.
- In 2002, 6.48 percent of pedestrians in motor vehicle crashes were killed compared with only 0.15 percent of crash vehicle occupants. 82.7 percent of pedestrians were injured compared with 14.8 percent of vehicle occupants.
- 85 percent of crash vehicle occupants were uninjured, compared with only 10.8 percent of the pedestrians involved in motor vehicle crashes.

Severity of Injury, 2002
Percent Injured



- 75 percent of all bicyclists in motor vehicle crashes were injured and 1.27 percent were killed.
- Bicyclists are 8 times more likely to be killed in crashes than vehicle occupants. 1.27 percent of pedestrians in motor vehicle crashes were killed, compared with 0.15 percent of vehicle occupants.

Severity of Injury, 2002
Percent of Total Persons in Crash

	Percent Injured	Percent Killed
Pedestrians	82.7	6.48
Bicyclists	75.0	1.27
Vehicle Occupants	14.8	0.15

- The risk of a bicyclist being seriously injured in a motor vehicle crash is 11 times greater than the risk of serious injury to a crash vehicle occupant. In 2002, only 0.56 percent of vehicle occupants were seriously injured, compared with 6.22 percent of bicyclists.

Data Source: Georgia Department of Motor Vehicle Safety

The contributing factors to crashes that kill and injure pedestrians and bicyclists such as speed, impaired driving and impatient drivers failing to yield are common to all motor vehicle crashes. In pedestrian and bicycle crashes however, the results are much more deadly.

- The pedestrian fatality rate per 100,000 population decreased from 2.11 in 1997 to 1.94 in 2002.
- From 1997 to 2002, the number of injuries declined 17.39 percent.
- In 2002, 64 percent of the pedestrians killed were struck on two-way roads without a physical separation or barrier.
- 16 pedestrians died while walking with traffic compared with 5 who were walking against traffic.

Pedestrian Injuries and Fatalities
Number and Rate per 100,000 Population*

	1997	2002	Percent Change 1997-2002
Injuries	2,564	2,118	-17.39
Rate per 100,000 Licensed Drivers	33.36	24.74	-25.84
Fatalities	162	166	2.47
Rate per 100,000 Licensed Drivers	2.11	1.94	-8.06

*We have no measure of the frequency of pedestrian traffic. Rate per 100,000 population indicates the risk to pedestrians in Georgia.

- 5 children under age 14 were killed while playing in the roadway. 4 were boys ages 2, 3, 5, and 13 and one was a girl age 2.

Bicycle Injuries and Fatalities
Number and Rate per 100,000 Population*

	1997	2002	Percent Change 1997-2002
Injuries	903	711	-21.26
Rate per 100,000 Licensed Drivers	11.75	8.31	-29.28
Fatalities	18	12	-33.33
Rate per 100,000 Licensed Drivers	0.23	0.14	-39.13

*We have no measure of the frequency of bicycle traffic. Rate per 100,000 population indicates the risk to bicyclists in Georgia.

- 12 people died in bicycle crashes in Georgia in 2002. Three were wearing a helmet.
- 6 of the 12 fatal bicycle crashes occurred at an intersection.
- 9 of the 12 bicyclists killed were male. 3 children under age 14 were killed on bicycles, children ages 5, 9, and 13.
- From 1997 to 2002, the number of bicyclists injured declined 21.26 percent.

Data Source: Georgia Department of Motor Vehicle Safety

Pedestrian fatalities accounted for one out of ten motor vehicle crash fatalities in 2002.

- The five Atlanta metropolitan counties accounted for 39 percent of the pedestrian fatalities in 2002. Twenty-seven percent occurred in DeKalb and Fulton County alone.
- In spite of the higher numbers in the five metropolitan Atlanta counties the fatality rate per 100,000 population for rural counties in Georgia is only slightly lower than the pedestrian fatality rate in the Atlanta counties.

Counties with Highest Pedestrian Crashes 2002

	Crashes	Injuries	Fatalities
Fulton	599	521	26
DeKalb	322	271	18
Cobb	157	131	10
Chatham	138	113	7
Gwinnett	134	112	5
Clayton	101	85	5
Richmond	91	70	5
Muscogee	84	68	2
Bibb	70	63	3
Clarke	51	47	1

- In 2002, the pedestrian fatality rate per 100,000 licensed drivers in rural Georgia was 2.01, compared with 2.09 in the five metropolitan Atlanta counties, 1.20 in suburban Atlanta counties and 2.14 in metropolitan counties other than Atlanta.

Pedestrian Crashes, Injuries and Fatalities by Region, 2002
Atlanta, Atlanta Suburban, Other MSA and Rural Counties*

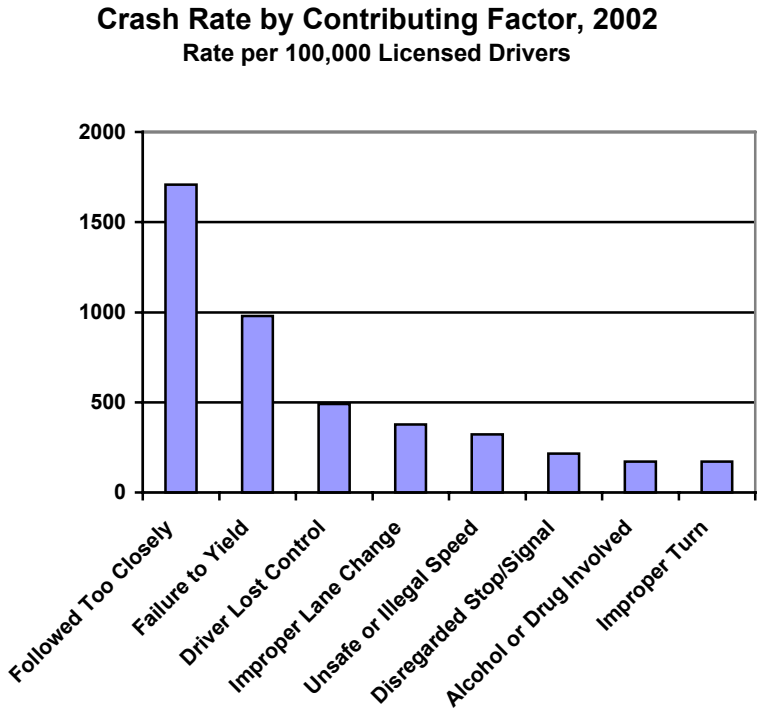
	Crashes		Injuries		Fatalities	
	Number	Rate per 100,000 Population	Number	Rate per 100,000 Population	Number	Rate per 100,000 Population
Atlanta	1,313	42.94	1,120	36.63	64	2.09
Atlanta Suburban	187	14.07	145	10.91	16	1.20
Other MSA	562	35.43	459	28.93	34	2.14
Rural Counties	499	19.28	394	15.23	52	2.01

*Five Atlanta Metropolitan Counties: Clayton, Cobb, DeKalb, Fulton, Gwinnett; Atlanta Suburban Counties: Barrow, Bartow, Carroll, Cherokee, Coweta, Douglas, Fayette, Forsyth, Henry, Newton, Paulding, Pickens, Rockdale, Spalding, Walton; Other Metropolitan Statistical Area (MSA) Counties: Bibb, Bryan, Catoosa, Chatham, Chattahoochee, Clarke, Columbia, Dade, Dougherty, Effingham, Harris, Houston, Jones, Lee, Madison, McDuffie, Muscogee, Oconee, Peach, Richmond, Twiggs, Walker; Rural Counties: All other counties

Data Source: Georgia Department of Motor Vehicle Safety

Contributing factors provide information on dangerous driver behaviors that increase the risk of a crash.

- Followed Too Closely was the most frequent contributing factor in crashes, it was noted by law enforcement officers 112,297 times in motor vehicle crashes in 2002.
- Failure to Yield was the second most often cited crash contributing factor, cited 64,346 times in 2002.
- In 2002, Driver Lost Control was noted 32,289 times and Unsafe or Illegal Speed was cited 21,206 times in crashes.



Crash Contributing Factors

Contributing Factor	1997 Number	1997 Rate per 100,000 Licensed Drivers	2002 Number	2002 Rate per 100,000 Licensed Drivers	Percent Change in Rate 1997-2002
Followed Too Closely	92,143	1,726.3	112,297	1,708.1	-1.05
Failure to Yield	67,356	1,261.9	64,346	978.7	-22.44
Driver Lost Control	27,347	512.3	32,289	491.1	-4.13
Improper Lane Change	21,690	406.4	24,845	377.9	-7.01
Unsafe or Illegal Speed	21,806	408.5	21,206	322.6	-21.04
Disregarded Stop/Signal	14,095	264.1	14,293	217.4	-17.68
Alcohol or Drug Involved	10,585	198.3	11,270	171.4	-13.55
Improper Turn	10,105	189.3	11,254	171.2	-9.57
Distracted	7,106	133.1	8,952	136.2	2.30
Wrong Side of Road	7,162	134.2	7,294	110.9	-17.33
Improper Passing	5,899	110.5	5,220	79.4	-28.15

*Count of number of times the contributing factor was noted for drivers in fatal crash. More than one contributing factor may be noted for a driver. The contributing factors listed do not represent all possible factors.

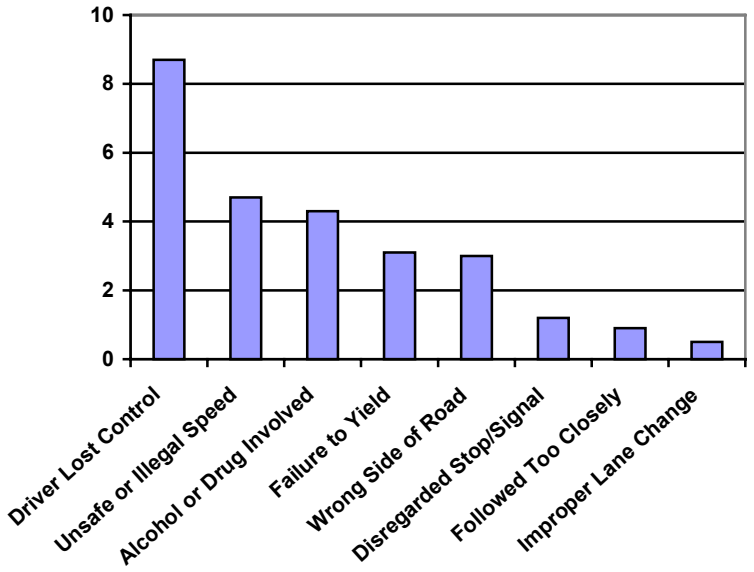
- Although the number of crashes increased for Followed Too Closely the rate per 100,000 licensed drivers declined.

Data Sources: Georgia Department of Motor Vehicle Safety

Contributing factors related to the driver provide information on dangerous driver behaviors that increase the risk of a fatal crash. Often it is not one single factor, but several that combine and result in a deadly crash. Yet each factor is critical because they are part of the chain of events that lead to a fatal crash.

- The fatality rate was highest for the contributing factor of Driver Lost Control, 8.7 per 100,000 licensed drivers. In the 1,369 fatal crashes in 2002, Driver Lost Control was cited 571 times by law enforcement officers.
- Unsafe or Illegal Speed and Alcohol or Drug Involved were the next highest contributing factors at rates of 4.7 and 4.3 per 100,000 licensed drivers respectively.

Fatality Rate by Contributing Factor, 2002
Rate per 100,000 Licensed Drivers



Fatal Crash Contributing Factors

Contributing Factor	1997 Number	1997 Rate per 100,000 Licensed Drivers	2002 Number	2002 Rate per 100,000 Licensed Drivers	Percent Change in Rate 1997-2002
Driver Lost Control	522	9.8	571	8.7	-11.19
Unsafe or Illegal Speed	362	6.8	309	4.7	-30.68
Alcohol or Drug Involved	494	9.3	281	4.3	-53.79
Failure to Yield	215	4.0	202	3.1	-23.76
Wrong Side of Road	258	4.8	199	3.0	-37.33
Disregarded Stop/Signal	76	1.4	80	1.2	-14.31
Followed Too Closely	59	1.1	57	0.9	-21.89
Improper Lane Change	32	0.6	31	0.5	-21.41
Improper Passing	26	0.5	14	0.2	-56.54
Improper Turn	12	0.2	15	0.2	3.71
Distracted	17	0.3	14	0.2	-33.45

*Count of number of times the contributing factor was noted for drivers in fatal crash. More than one contributing factor may be noted for a driver. The contributing factors listed do not represent all possible factors.

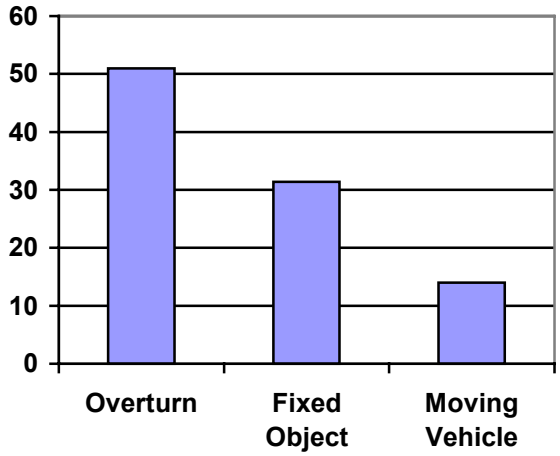
- In 2002, Failure to Yield was noted 202 times in fatal crashes and Followed Too Closely was noted 57 times.

Data Source: Georgia Department of Motor Vehicle Safety

Overturn and fixed object crashes are deadly. In fixed object crashes, 31.36 percent of those involved were killed or injured compared with 14.03 percent in collisions with a moving vehicle. In overturn crashes the percent is even higher, 50.96 percent of the people involved were killed or injured.

- Fixed object crashes accounted for 30.31 percent of the fatal crashes in 2002.
- 54.94 percent of the fatal fixed object crashes occurred in rural counties, compared with 17.59 percent in the five Atlanta metropolitan counties.
- Crashes in which the first harmful event was collision with another moving vehicle accounted for 44.12 percent of the fatal crashes and crashes in which a vehicle overturned accounted for 10.15 percent.
- From 1997 to 2002, the fatal crash rate per 100,000 licensed drivers declined for all types of crashes except fatal overturn crashes.

Severity of Injury, 2002
Percent Injured or Killed



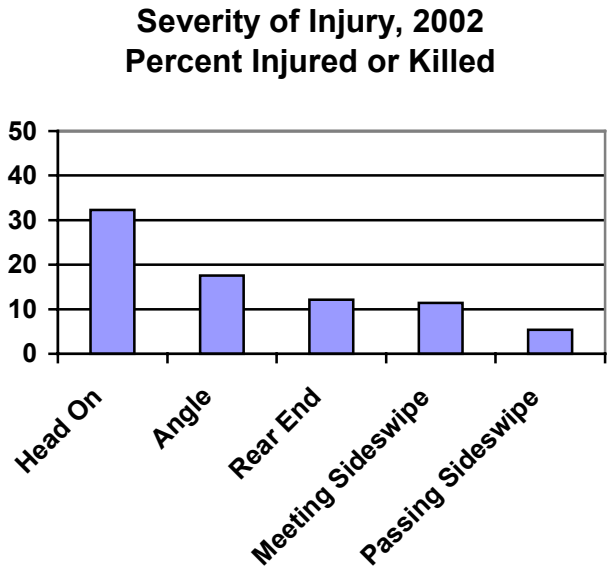
Type of Crash

	1997 Number	1997 Rate per 100,000 Licensed Drivers	2002 Number	2002 Rate per 100,000 Licensed Drivers	Percent Change in Rate 1997-2002
Crashes					
Collision with Moving Vehicle	232,858	4,362.47	252,978	3,847.91	-11.80
Collision with Fixed Object	37,384	700.37	41,658	633.64	-9.53
Overturn Non-Collision	4,566	85.54	4,963	75.49	-11.71
Injury Crashes					
Collision with Moving Vehicle	65,255	1,222.52	64,719	984.41	-19.48
Collision with Fixed Object	13,294	249.06	14,268	217.02	-12.88
Overturn Non-Collision	2,606	48.82	2,889	43.94	-9.95
Fatal Crashes					
Collision with Moving Vehicle	638	11.95	604	9.19	-23.44
Collision with Fixed Object	423	7.92	415	6.31	-20.10
Overturn Non-Collision	110	2.06	139	2.11	0.68

Data Source: Georgia Department of Motor Vehicle Safety

Crashes that occur at an angle accounted for one out of four of the fatal motor vehicle crash in Georgia in 2002.

- In head on crashes, 32.29 percent of those involved were killed or injured compared with 15.4 percent in crashes overall.
- Head on crashes represented 13.29 percent of the fatal crashes in 2002.
- From 1997 to 2002, the crash rate declined for all types of crashes.



Manner of Two-Vehicle Collision

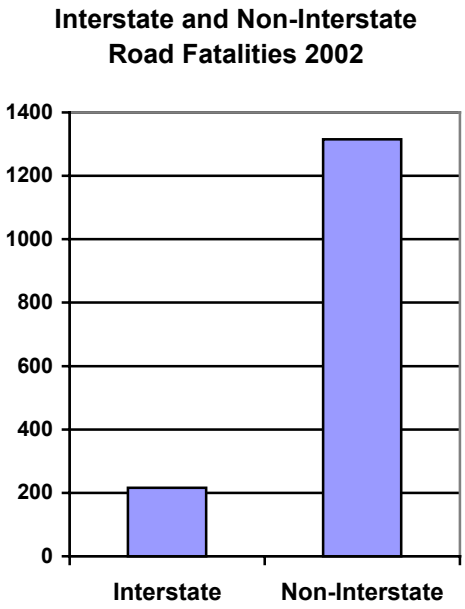
	1997 Number	1997 Rate per 100,000 Licensed Drivers	2002 Number	2002 Rate per 100,000 Licensed Drivers	Percent Change in Rate 1997-2002
Crashes					
Angle	93,394	1,749.7	92,106	1,401.0	-19.93
Head On	7,489	140.3	7,566	115.1	-17.98
Rear End	107,803	2,019.6	125,981	1,916.2	-5.12
Passing Sideswipe	26,510	496.7	30,245	460.0	-7.37
Meeting Sideswipe	7,550	141.4	7,459	113.5	-19.79
Injury Crashes					
Angle	29,685	556.1	27,566	419.3	-24.61
Head On	3,592	67.3	3,526	53.6	-20.30
Rear End	29,168	546.4	30,469	463.4	-15.19
Passing Sideswipe	3,152	59.1	3,145	47.8	-18.99
Meeting Sideswipe	1,549	29.0	1,493	22.7	-21.75
Fatal Crashes					
Angle	365	6.8	324	4.9	-27.93
Head On	188	3.5	182	2.8	-21.40
Rear End	91	1.7	79	1.2	-29.52
Passing Sideswipe	24	0.4	23	0.3	-22.19
Meeting Sideswipe	26	0.5	28	0.4	-12.56

- Not only did the rate decline for fatal crashes, the actual number of fatal crashes declined for all types of two-vehicle collisions except for meeting sideswipe collisions.

Data Source: Georgia Department of Motor Vehicle Safety

Non-interstate roads are more dangerous than interstates. In 2002, 1,315 people died on state, county and city roads, compared with 216 deaths on interstate highways. In 2002, there were 5,068 serious injuries in crashes on non-interstate roads compared with 661 serious injuries in crashes on interstate roads.

- In 2002, an average of 25 fatalities occurred on non-interstate roads each week, compared with an average of 4 fatalities each week on interstates.
- Safe roads are well designed with wide lanes, clear signs, road striping, guardrails, wide solid shoulders, well planned traffic control devices, and proper grading. Non-interstate roads are often not as well engineered, and often have frequent entering and exiting traffic, which greatly increases the risk of a crash, compared with limited access interstates.
- 58.96 percent of the fatal interstate crashes occurred in rural counties or counties in metropolitan statistical areas other than Atlanta. 27.75 percent of the fatal interstate crashes occurred in the five Atlanta metropolitan counties.



Interstate and Non-Interstate Roads

	1997 Number	1997 Rate per 100 Million Vehicle Miles Traveled	2002 Number	2002 Rate per 100 Million Vehicle Miles Traveled	Percent Change in Rate 1997-2002
Interstate					
Crashes	29,406	117.54	37,106	131.14	11.57
Injuries	13,018	52.04	14,294	50.52	-2.93
Fatalities	205	0.82	216	0.76	-6.91
Non-interstate					
Crashes	272,359	400.21	290,668	370.33	-7.47
Injuries	126,357	185.67	118,329	150.76	-18.80
Fatalities	1,379	2.03	1,315	1.68	-17.47

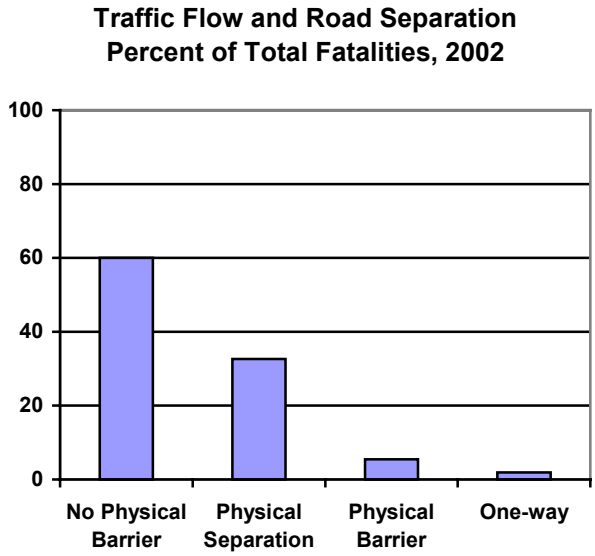
- The number of injuries and fatalities on interstates increased from 1997 to 2002.
- During the same time period, the number of injuries and fatalities on non-interstate roads declined.

Data Source: Georgia Department of Motor Vehicle Safety, Georgia Department of Transportation

Two-way roads with no physical separation or barrier are the most dangerous roads. The greater the road separation, the fewer the fatalities. As oncoming traffic is separated, the number of fatalities decline. The highest number of fatalities occurred on two-way roads with no physical barrier or separation.

- In 2002, fatalities on two-way roads with no physical separation or barrier accounted for 60.0 percent of all fatalities in Georgia. In 2002, 918 people died in motor vehicle crashes on two-way roads with no physical barrier or separation, compared with 500 deaths on two-way roads with a physical separation.

- From 1997 to 2002, the number of fatalities on two-way roads with no physical barrier or separation decreased 23.2 percent, compared with an increase of 70.6 percent on divided roads with a physical separation. During the same time period, the number of fatalities on interstate roads increased 5.4 percent.



Traffic Flow and Road Separation

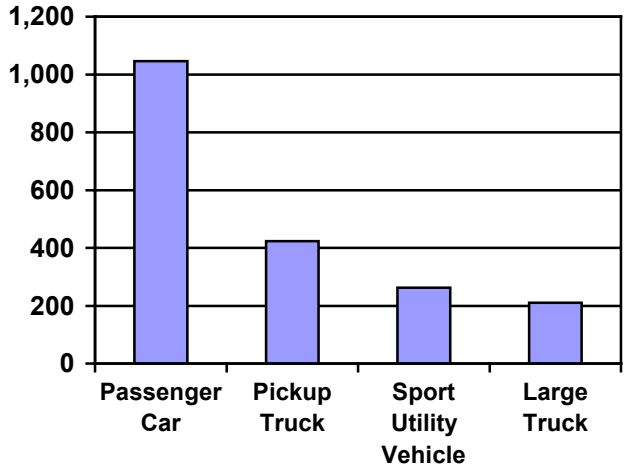
	1997 Number	1997 Percent	2002 Number	2002 Percent	Percent Change in Number 1997-2002
Crashes					
Two-way with No Physical Separation/Barrier	214,826	71.2	217,669	66.4	1.32
Two-way with Physical Separation	54,018	17.9	70,197	21.4	29.95
Two-way with Physical Barrier	13,794	4.6	18,265	5.6	32.41
One-way Roadway	19,133	6.3	21,643	6.6	13.12
Total	301,771	100.0	327,774	100.0	8.62
Injuries					
Two-way with No Physical Separation/Barrier	101,530	72.8	87,895	66.3	-13.43
Two-way with Physical Separation	25,024	18.0	31,255	23.6	24.90
Two-way with Physical Barrier	5,936	4.3	7,145	5.4	20.37
One-way Roadway	6,889	4.9	6,328	4.8	-8.14
Total	139,379	100.0	132,623	100.0	-4.85
Fatalities					
Two-way with No Physical Separation/Barrier	1,196	75.5	918	60.0	-23.24
Two-way with Physical Separation	293	18.5	500	32.7	70.65
Two-way with Physical Barrier	63	4.0	84	5.5	33.33
One-way Roadway	32	2.0	29	1.9	-9.38
Total	1,584	100.0	1,531	100.0	-3.35

Data Source: Georgia Department of Motor Vehicle Safety

Passenger cars accounted for six out of ten of all vehicles in injury crashes and crashes overall although they represented four out of ten vehicles in fatal crashes.

- In 2002, passenger cars represented 46.04 percent of all vehicles in fatal crashes. Pickup trucks accounted for 18.62 percent and sport-utility vehicles accounted for 11.58 percent of the vehicles involved in fatal crashes.
- Motorcycles represented 3.74 percent of the vehicles in fatal crashes although they accounted for only 0.40 percent of the vehicles in crashes overall.
- Large trucks accounted for 9.29 percent of the vehicles in fatal crashes although they represented 3.35 percent of the vehicles in crashes overall.

Vehicles in Fatal Crashes, 2002



Vehicles Involved In Motor Vehicle Crashes, 2002

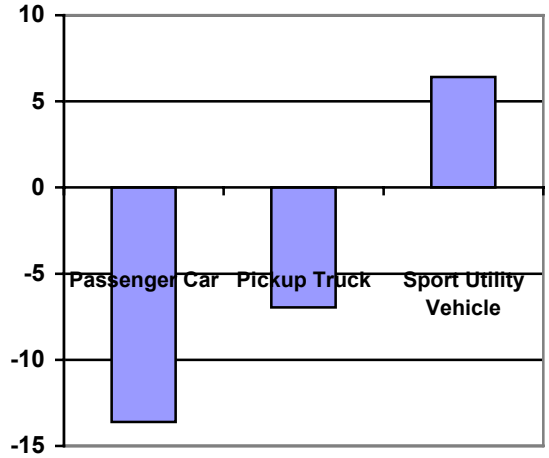
	Crashes		Injury Crashes		Fatal Crashes	
	Number	Percent	Number	Percent	Number	Percent
Passenger Car	373,743	60.05	100,999	60.40	1,046	46.04
Pickup Truck	100,776	16.19	26,520	15.86	423	18.62
Sport Utility Vehicle	71,990	11.57	18,732	11.20	263	11.58
Van	39,263	6.31	10,669	6.38	150	6.60
Large Truck	20,837	3.35	4,961	2.97	211	9.29
Bus	2,946	0.47	595	0.36	9	0.40
Vehicle with Trailer	2,540	0.41	617	0.37	24	1.06
Motorcycle, Minibike	2,499	0.40	1,801	1.08	85	3.74
Panel Truck	2,181	0.35	437	0.26	6	0.26
Ambulance	288	0.05	75	0.04	3	0.13
Other	5,288	0.85	1,816	1.09	52	2.29
Total	622,351	100.00	167,222	100.00	2,272	100.00

Data Source: Georgia Department of Motor Vehicle Safety

Although the number of sport utility vehicles in fatal crashes increased from 1997 to 2002, the actual risk or the fatal crash rate per 100,000 registered vehicles for sport utility vehicles (SUV) decreased 10.59 percent.

- From 1997 to 2002, the crash rate per 100,000 registered vehicles for sport utility vehicles increased 6.41 percent, compared with a 13.62 percent decline for passenger cars and a 6.95 percent decline for pickup trucks.
- The injury crash rate declined for passenger cars, pickup trucks and sport utility vehicles from 1997 to 2002.
- The decrease in the fatal crash rate for passenger cars and pickup trucks was more than double the decline in the fatal crash rate for sport utility vehicles.

Passenger Vehicles in Crashes
Percent Change in Rate
From 1997 to 2002



Passenger Vehicles Involved In Motor Vehicle Crashes
Number and Rate per 100,000 Registered Vehicles

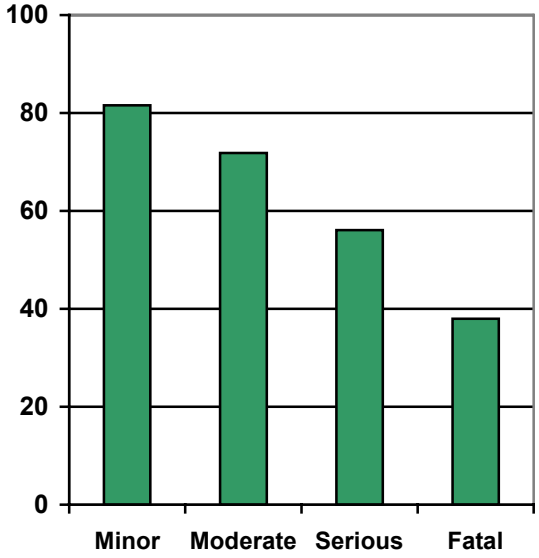
	1997 Registered Vehicles	Number of Vehicles	Rate per 100,000 Registered Vehicles	2002 Registered Vehicles	Number of Vehicles	Rate per 100,000 Registered Vehicles	Percent Change in Rate 1997-2002
All Crashes							
Passenger Car	3,688,005	378,867	10,272.95	4,211,547	373,743	8,874.25	-13.62
Pickup Truck	1,271,362	89,751	7,059.44	1,534,145	100,776	6,568.87	-6.95
SUV	490,589	33,812	6,892.12	981,648	71,990	7,333.59	6.41
Injury Crashes							
Passenger Car	3,688,005	112,542	3,051.57	4,211,547	100,999	2,398.14	-21.41
Pickups	1,271,362	25,309	1,990.70	1,534,145	26,520	1,728.65	-13.16
SUV	490,589	9,420	1,920.14	981,648	18,732	1,908.22	-0.62
Fatal Crashes							
Passenger Car	3,688,005	1,184	32.10	4,211,547	1,046	24.84	-22.64
Pickups	1,271,362	454	35.71	1,534,145	423	27.57	-22.79
SUV	490,589	147	29.96	981,648	263	26.79	-10.59

Data Source: Georgia Department of Motor Vehicle Safety

In 2002 there were 26,009 more crashes than in 1997. Although there was an increase in thousands of people at risk of injury, there were 6,442 fewer vehicle occupants injured in 2002 than in 1997. During the same time period seat belt usage for all crash occupants increased 5.2 percentage points, from 74.4 percent in 1997 to 79.6 in 2002.

- Persons over age 4 with minor injuries had the highest seat belt use. 81.6 percent of those with minor injuries were reported as using their seat belts.
- Fatally injured persons had the lowest seat belt use. 38.0 percent of the persons killed were reported as using their seat belts.

Seat Belt Use By Severity of Injury, 2002



Motor Vehicle Occupants and Seat Belt Use*
Number and Percent Belted

	1997 Number	1997 Percent Belted	2002 Number	2002 Percent Belted
Adult Occupants	732,845	74.4	782,922	79.6
Minor Injury	92,610	75.5	89,579	81.6
Moderate Injury	30,880	60.4	27,839	71.8
Serious Injury	4,980	46.4	4,610	56.1
Total Injuries	128,470	70.7	122,028	78.4
Fatalities	1,278	26.7	1,209	38.0

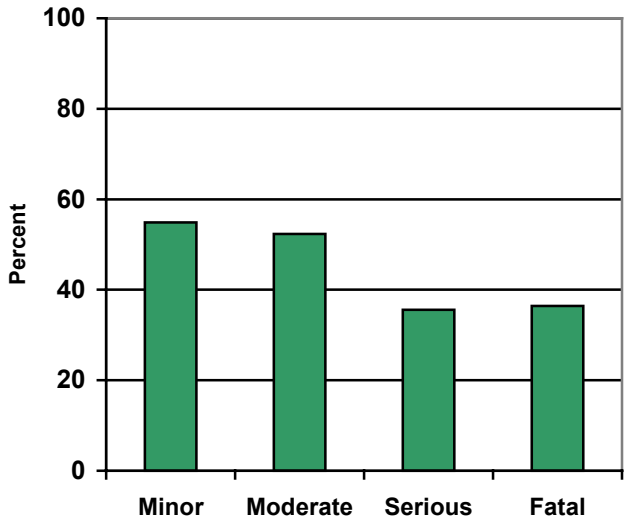
*Seat belt use as noted by the law enforcement officer on the crash report for occupants over age 4. Persons on motorcycles, mopeds, bicycles, farm and construction equipment, or all terrain vehicles are excluded.

Data Source: Georgia Department of Motor Vehicle Safety

The number of children who were properly restrained in child safety seats in crash vehicles increased 16.4 percentage points from 1997 to 2002.

- Properly used child safety seats reduce the risk of fatal injury to young children in motor vehicle crashes by 71 percent for infants and 54 percent for toddlers.
- In 2002 in Georgia, 22 vehicle occupants under age five were killed in motor vehicle crashes, five fewer than 1997.
- In 2002, 3,095 children age four and under were injured, 490 fewer than in 1997. During the same time period, proper child safety seat use for injured children increased by 16.8 percentage points.

Children Properly Restrained in Child Safety Seats by Severity of Injury, 2002



Proper Child Safety Seat Use*
Number and Percent Belted

	1997 Number	1997 Percent Belted	2002 Number	2002 Percent Belted
Child Occupants	30,560	50.4	31,838	66.8
Minor Injury	2,413	38.7	2,125	58.2
Moderate Injury	1,028	41.5	861	53.0
Serious Injury	144	27.8	109	34.9
Total Injuries	3,585	39.1	3,095	55.9
Fatalities	27	18.5	22	27.3

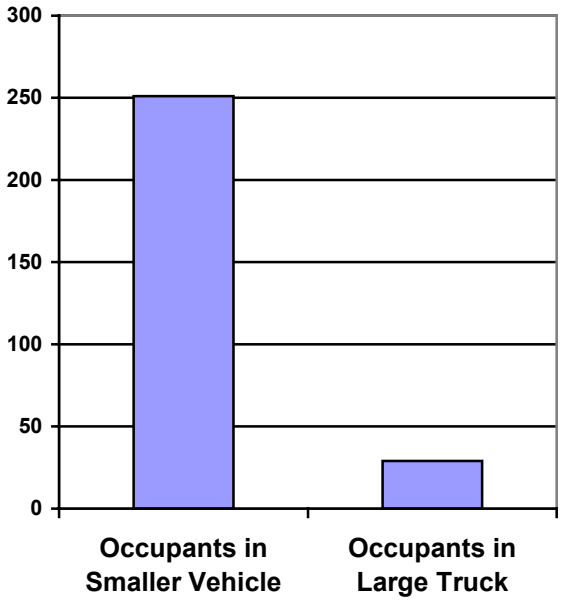
*Proper child safety seat use as noted by the law enforcement officer on the crash report for vehicle occupants under age 5. Children on motorcycles, mopeds, bicycles, farm and construction equipment, or all terrain vehicles are excluded.

Data Source: Georgia Department of Motor Vehicle Safety

More than one out of seven fatalities in Georgia occurred in a crash involving a large truck in 2002. Crashes with large trucks are more deadly because large trucks are heavier than lighter vehicles and cannot stop quickly or maneuver to avoid a crash.

- Of the 280 fatalities that occurred in crashes involving at least one large truck, 89.6 percent of the people killed were occupants of the smaller vehicle compared with 10.4 percent for the large truck occupants.

Fatally Injured Occupants in Large Truck Crashes, 2002



Motor Vehicle Crashes Involving Large Trucks
Number of Vehicles and Percent Change 1997-2002

	1997	2002	Percent Change
All Crashes			
Tractor Trailer	10,799	11,779	9.07
Single Unit Truck	6,229	7,046	13.12
Truck Tractor	982	920	-6.31
Logging Tractor Trailer	556	641	15.29
Tractor w. Twin Trailers	203	262	29.06
Logging Truck	197	189	-4.06
Total Large Trucks	18,966	20,837	9.87
Injury Crashes			
Tractor Trailer	2,762	2,761	-0.04
Single Unit Truck	1,617	1,650	2.04
Truck Tractor	301	238	-20.93
Logging Tractor Trailer	207	223	7.73
Tractor w. Twin Trailers	56	53	-5.36
Logging Truck	55	36	-34.55
Total Large Trucks	4,998	4,961	-0.74
Fatal Crashes			
Tractor Trailer	129	131	1.55
Single Unit Truck	45	53	17.78
Truck Tractor	8	11	37.50
Logging Tractor Trailer	18	12	-33.33
Tractor w. Twin Trailers	4	3	-25.00
Logging Truck	1	1	0.00
Total Large Trucks	205	211	2.93

- From 1997 to 2002, the number of large trucks in fatal crashes increased for tractor trailers, single unit trucks, and truck tractors.
- The greatest increase in fatal crashes was for truck tractors, 27.27 percent more vehicles were involved in fatal crashes from 1997 to 2002.
- In 10.8 percent of the fatal multiple-vehicle large truck crashes the large truck was struck from the rear by the other vehicle. In 51.7 percent of the fatal multiple-vehicle large truck crashes the impact point was the front of the large truck.

Data Source: Georgia Department of Motor Vehicle Safety

*C*rash *A*nalysis, *S*tatistics & *I*nformation

Georgia Department of Motor Vehicle Safety **December 2003**